

Amendments to the Claims

1. (Withdrawn-Currently Amended) A method of decontaminating an article using the apparatus of claim 24, comprising:
 - enclosing the article in an environment the sealable decontamination chamber;
 - humidifying the environment sealable decontamination chamber to enhance susceptibility of spores to decontamination with chlorine dioxide;
 - reducing the pressure in the humidified environment sealable decontamination chamber to at least as low as 100 inches of water (0.25396 kg/cm²); and
 - introducing into the environment sealable decontamination chamber a concentration of gaseous chlorine dioxide effective to decontaminate the article by killing substantially 100% of the spores.
2. (Withdrawn) The method of claim 1, wherein the article is porous.
3. (Withdrawn) The method of claim 1, wherein the article is non-porous.
4. (Withdrawn-Currently Amended) The method of claim 1, wherein the environment sealable decontamination chamber is a rigid container, autoclave, or hypobaric chamber.
5. (Withdrawn-Currently Amended) The method of claim 1, wherein humidifying the environment sealable decontamination chamber comprises increasing the relative humidity of the environment sealable decontamination chamber to at least 95%.
6. (Withdrawn-Currently Amended) The method of claim 5, wherein humidifying the environment sealable decontamination chamber comprises increasing the relative humidity of the environment sealable decontamination chamber to at least 90% for at least one hour.
7. (Withdrawn-Currently Amended) The method of claim 6, wherein humidifying the environment sealable decontamination chamber comprises increasing the relative humidity of the environment sealable decontamination chamber to at least 90% for at least three hours.

8. (Withdrawn-Currently Amended) The method of claim 1, wherein the pressure in the humidified environment sealable decontamination chamber is reduced to at least as low as 50 inches of water (0.12698 kg/cm²).
9. (Withdrawn-Currently Amended) The method of claim 1, wherein the pressure in the humidified environment sealable decontamination chamber is reduced to at least as low as 29 inches of water (0.0736484 kg/cm²).
10. (Withdrawn) The method of claim 1, wherein the concentration of gaseous chlorine dioxide is at least 1000 parts per million.
11. (Withdrawn) The method of claim 1, wherein the concentration of gaseous chlorine dioxide is at least 2500 parts per million.
12. (Withdrawn) The method of claim 1, wherein the gaseous chlorine dioxide is humidified to at least 70% humidity.
13. (Withdrawn-Currently Amended) The method of claim 1, wherein the gaseous chlorine dioxide is introduced concurrently with humidified air of at least 70% humidity.
14. (Withdrawn) The method of claim 1, wherein the article is exposed to the gaseous chlorine dioxide for at least one hour.
15. (Withdrawn) The method of claim 14, wherein the article is exposed to the gaseous chlorine dioxide for at least six hours.
16. (Withdrawn) The method of claim 1, wherein the spore is a *Bacillus anthracis* spore.
17. (Withdrawn) The method of claim 1, wherein the spore is a weaponized spore.

18. (Withdrawn) The method of claim 1, wherein the article comprises paper.

19. (Withdrawn-Currently Amended) The method of claim 1, wherein ~~the environment is a decontamination chamber, humidifying the environment~~ sealable decontamination chamber comprises increasing the relative humidity of the ~~environment~~ sealable decontamination chamber to at least 90% for at least one hour, the pressure in the humidified ~~environment~~ sealable decontamination chamber is reduced to at least as low as 29 inches of water (0.0736484 kg/cm²), the concentration of gaseous chlorine dioxide is at least 1000 parts per million, and the article is exposed to humidified gaseous chlorine dioxide for at least one hour.

20. (Withdrawn-Currently Amended) The method of claim 1, wherein the humidifying and the introducing into the ~~environment~~ sealable decontamination chamber a concentration of gaseous chlorine dioxide occurs at substantially the same time.

21. (Withdrawn-Currently Amended) A method of decontamination using the apparatus of claim 39, comprising:

sealing ~~the~~ a room or building, thereby generating the selectively sealable decontamination chamber; a sealed room or sealed building;

humidifying the sealed room or sealed building to enhance ~~the~~ the susceptibility of spores in the sealed room or sealed building to decontamination with the source of chlorine dioxide; and

introducing into the sealed room or sealed building a concentration of gaseous chlorine dioxide effective to decontaminate the sealed room or sealed building by killing substantially 100% of the spores.

22. (Withdrawn-Currently Amended) The method of claim 21, wherein the humidifying and the introducing into the sealed room or sealed building ~~environment~~ a concentration of gaseous chlorine dioxide occurs at substantially the same time.

23. (Withdrawn) The method of claim 21, wherein the sealed room or sealed building is at ambient pressure.

24. (Original) An apparatus for decontaminating a porous article, comprising:
 - a selectively sealable decontamination chamber;
 - a decontamination chamber humidifier;
 - a source of chlorine dioxide gas in fluid communication with the decontamination chamber; and
 - a decontamination chamber vacuum generator.
25. (Original) The apparatus of claim 24, further comprising:
 - a first fluid flow path for transferring humidified gas from the decontamination chamber humidifier to the selectively sealable decontamination chamber;
 - a second fluid flow path for transferring chlorine dioxide gas from the source of chlorine dioxide to the selectively sealable decontamination chamber; and
 - a third fluid flow path for evacuating the selectively sealable decontamination chamber via the decontamination chamber vacuum generator.
26. (Original) The apparatus of claim 25, further comprising a flow regulator in the first fluid flow path.
27. (Currently Amended) The apparatus of claim 25, further comprising a ~~rotometer~~ rotameter in the first fluid flow path.
28. (Original) The apparatus of claim 25, further comprising a nitrogen source and a fourth fluid flow path for transferring nitrogen gas to the decontamination chamber humidifier.
29. (Original) The apparatus of claim 28, further comprising a fill valve in the fourth fluid flow path.
30. (Original) The apparatus of claim 28, further comprising a flow regulator in the fourth fluid flow path.

31. (Original) The apparatus of claim 25, further comprising a flow regulator in the third fluid flow path.
32. (Original) The apparatus of claim 25, further comprising a ventilation valve in the second fluid flow path.
33. (Original) The apparatus of claim 24, wherein the source of chlorine dioxide gas is a chlorine dioxide generator.
34. (Original) The apparatus of claim 24, wherein the selectively sealable decontamination chamber is a rigid container.
35. (Original) The apparatus of claim 24, wherein the apparatus further comprises a heat source for providing heat to the selectively sealable decontamination chamber.
36. (Original) The apparatus of claim 24, wherein the apparatus further comprises a hygrometer for regulating humidity in the selectively sealable decontamination chamber.
37. (Original) The apparatus of claim 34, wherein the rigid container comprises a heat source, a thermostat for regulating the heat source, and a hygrometer for regulating humidity in the rigid container.
38. (Original) The apparatus of claim 24, wherein the selectively sealable decontamination chamber comprises an autoclave or a hypobaric chamber.
39. (New) An apparatus for decontaminating a room or building, comprising:
 - a selectively sealable decontamination chamber;
 - a decontamination chamber humidifier; and
 - a source of chlorine dioxide gas in fluid communication with the selectively sealable decontamination chamber.

40. (New) The apparatus of claim 39, further comprising a decontamination chamber vacuum generator.
41. (New) The apparatus of claim 39, wherein the source of chlorine dioxide gas is a chlorine dioxide generator.
42. (New) A decontaminated porous article produced by the process of:
 - enclosing the porous article in an environment;
 - humidifying the environment to enhance susceptibility of spores in the environment to decontamination with a source of chlorine dioxide;
 - reducing the pressure in the humidified environment to at least as low as 100 inches of water (0.25396 kg/cm²); and
 - introducing into the humidified environment a concentration of gaseous chlorine dioxide effective to decontaminate the porous article by killing substantially 100% of the spores.